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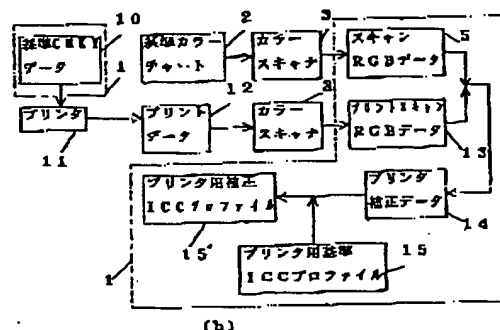
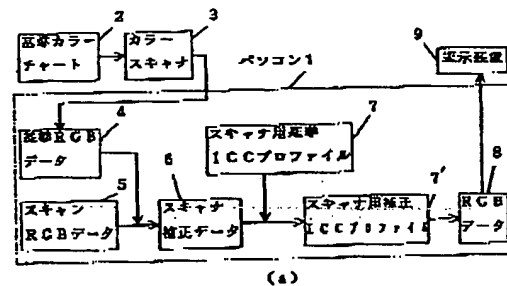
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(54) 【発明の名称】 カラーマネジメントシステム

(57) 【要約】

【課題】 カラーマネジメントシステム内の機器を交換した時に発生するカラーマッチング崩れを簡単に補正する。

【解決手段】 スキャナ交換の場合、基準カラーチャート2とスキャナ3から得られる基準RGBデータ4とスキャナRGBデータ5とを比較して得られるスキャナ補正データ6を使ってスキャナ用基準ICCプロファイル7を補正する。プリンタ交換の場合、基準CMYKデータ10とプリンタ11から得られるプリントデータ12をカラーズキャナ3に投入し、スキャンして得られるプリントスキャンRGBデータ13とスキャンRGBデータ5とを比較して得られるプリンタ補正データ14を使ってプリンタ用基準ICCプロファイル15を補正する。



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[Title of the Invention] Color Management System

[Abstract]

[Problem to be solved] To easily correct color mismatch which occurs when equipment in a color management system has been replaced.

[Solving means] During scanner replacement, a reference ICC profile 7 for a scanner is corrected by using scanner correction data 6 obtained by comparing reference RGB data 4, which is obtained from a reference color chart 2 and a scanner 3, with scanner RGB data 5. During printer replacement, a reference ICC profile 15 for a printer is corrected by using printer correction data 14 obtained by comparing print scan RGB data 13 with scan RGB data 5, the print scan RGB data 13 being obtained by inputting to a color scanner 3 reference CMYK data 10 and print data 12 which is obtained from a printer, and then, scanning the inputted data.

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[Scope of Claim for a Patent]

[Claim 1] A color management system composed of a scanner, a printer, a personal computer, and a display device, said color management system comprising:

color matching means for correcting a reference ICC profile for a scanner by using scanner correction data obtained by comparing reference RGB data with scanner RGB data; and

color matching processing means for correcting a reference ICC profile for use in a printer by using printer correction data obtained by comparing printer RGB data with reference RGB data which is obtained by scanning a reference color chart by a scanner, the printer RGB data being obtained in a manner such that print data obtained by inputting reference CMYK data into the printer is scanned by the scanner to obtain the printer RGB data.

[Detailed Description of the Invention]

[0001]

[Technical Field to Which the Invention Pertains]

The present invention relates to a color management system, and more particularly, to color matching processing which copes with a change of peripherals.

[0002]

[Prior Art]

Conventionally, in a color management system composed of a scanner, a printer, a personal computer, and a display device or the like, color matching processing of an entire system has

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been performed while a basic ICC profile (information data including equipment characteristics) is accommodated in the personal computer, the basic ICC profile being data processed, the profile including individual characteristics possessed by the scanner, printer, and display device at the time of factory shipment.

[0003]

[Problem to Be Solved by the Invention]

However, if part of the equipment in the system is changed, a condition for the reference ICC profile of that equipment is changed, the profile being produced at the time of factory shipment, and then, color mismatching occurs. Therefore, in order to maintain color matching of the system, the changed equipment must be restored or the reference ICC profile of the equipment must be created again. It is problematic that time and effort are required, and appropriate facilities (a standard color chart and a profile maker of personal computer software) must be provided.

[0004]

[Means for Solving the Problem]

According to the present invention, a reference ICC profile for equipment is changed by using correction data obtained by comparing reference RGB data and RGB data obtained from changed equipment in order to solve the above described problem.

[0005]

[Embodiments of the Invention]

The present invention is means to be used when replacing a scanner and/or a printer in a system. That is, part of the reference ICC profile of the scanner and printer in a personal computer is corrected by using correction data obtained by comparing reference data for use in the scanner and printer stored in advance in the personal computer with data obtained from equipment after replaced.

[0006]

[Embodiment]

Fig. 1-(a) is a block diagram of color matching processing means according to the present invention when a scanner is changed. Fig. 1-(b) is a block diagram of color processing means according to the present invention when a printer is replaced. Hereinafter, a description will be given with referring to the accompanying drawings.

[0007]

When a scanner in the color management system at the time of factory shipment is changed, the following processing is performed. That is, corrected ICC profile 7 for a scanner is created by changing part of a reference ICC profile 7 for a scanner by using scanner correction data 6 obtained by comparing scan RGB data 5 and reference RGB data 4 stored in a personal computer 1, the scan RGB data being obtained by scanning an attached reference color chart 2 (printed based upon the standard color chart) by means of a scanner 3. Then, the RGB

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data corrected by using the corrected ICC profile 7 for the scanner is outputted; a color image is outputted to a display device 9; and it is verified that color matching processing has been performed.

[0008]

Similarly, when a printer in the system is replaced, the following processing is performed. That is, reference CMYK data 10 accommodated in advance in the personal computer 1 is inputted to a printer 11, and print data 12 is outputted. Part of a reference ICC profile 15 for a printer is changed by using printer corrected data 14 obtained by comparing print scan RGB data 13 obtained by scanning the outputted print data 12 by the scanner 3 with the scan RGB data 5 obtained by scanning the reference color chart 2 by the scanner 3, and a corrected ICC profile 15 for a printer is created. Then, an image obtained by inputting a reference CMYK data 10 to a display device 9 is compared with an image of a printout obtained by inputting the reference CMYK data 10 to the printer 11 again, and it is verified that color matching processing has been performed.

[0009]

[Advantageous Result of the Invention]

In color matching processing in the color management system according to the present invention as described above, even if equipment in the system is replaced, there is no need for re-creating a reference ICC profile again. Thus, there is no need for providing expensive standard color chart or profile

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software. Therefore, there is an advantage that time and effort can be saved and equipment can be arbitrarily replaced.

[Brief Description of the Drawings]

[Fig. 1] Fig. 1 (a) and Fig. 1 (b) are block diagrams each relating to color matching processing in a color management system according to the present invention. Fig. 1 (a) is a block diagram showing a case in which a scanner is replaced; and Fig. 1 (b) is that showing a case in which a printer is replaced.

[Reference Numerals]

- 1: Personal computer
- 2: Reference color chart
- 3: Scanner
- 4: Reference color chart
- 5: Scan RGB data
- 6: Scanner correction data
- 7: Reference ICC profile for a scanner
- 7': Corrected ICC profile for a scanner
- 8: RGB data
- 9: Display device
- 10: Reference CMYK data
- 11: Printer
- 12: Print data
- 13: Print scan GB data
- 14: Printer correction data
- 15: Reference ICC profile for a printer
- 15': Corrected ICC profile for a printer